

X(3940) $I^G(J^{PC}) = ??(??)$

OMITTED FROM SUMMARY TABLE

Reported by ABE 07, observed in $e^+ e^- \rightarrow J/\psi X$.**X(3940) MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3942\pm7\pm6	52	PAKHLOV	08	BELL $e^+ e^- \rightarrow J/\psi X$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
3943 \pm 6 \pm 6	25	¹ ABE	07	BELL $e^+ e^- \rightarrow J/\psi X$
3936 \pm 14	266	² ABE	07	BELL $e^+ e^- \rightarrow J/\psi(c\bar{c})$

¹From a fit to $D^{*+} D^-$ and $D^{*0} \bar{D}^0$ events.
²From the inclusive fit. Not independent of the exclusive measurement by ABE 07.

X(3940) WIDTH

VALUE (MeV)	CL%	EVTS	DOCUMENT ID	TECN	COMMENT
37\pm26\pm8		52	PAKHLOV	08	BELL $e^+ e^- \rightarrow J/\psi X$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<52	90	25	ABE	07	BELL $e^+ e^- \rightarrow J/\psi X$

X(3940) DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 D\bar{D}^* + c.c.$	seen
$\Gamma_2 D\bar{D}$	not seen
$\Gamma_3 J/\psi\omega$	not seen

X(3940) BRANCHING RATIOS

$\Gamma(D\bar{D}^* + c.c.)/\Gamma_{\text{total}}$	Γ_1/Γ				
VALUE	CL%	EVTS	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
>0.45	90	25	^{3,4} ABE	07	BELL $e^+ e^- \rightarrow J/\psi X$

³For $X(3940)$ decaying to final states with more than two tracks.
⁴PAKHLOV 08 finds that the inclusive peak near 3940 MeV/c² may consist of several states.

$\Gamma(D\bar{D})/\Gamma_{\text{total}}$	Γ_2/Γ			
VALUE	CL%	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.41	90	^{5,6} ABE	07	BELL $e^+ e^- \rightarrow J/\psi X$

⁵For $X(3940)$ decaying to final states with more than two tracks.
⁶PAKHLOV 08 finds that the inclusive peak near 3940 MeV/c² may consist of several states.

$\Gamma(J/\psi\omega)/\Gamma_{\text{total}}$	Γ_3/Γ			
VALUE	CL%	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.26	90	^{7,8} ABE	07	BELL $e^+ e^- \rightarrow J/\psi X$

⁷For $X(3940)$ decaying to final states with more than two tracks.
⁸PAKHLOV 08 finds that the inclusive peak near 3940 MeV/c² may consist of several states.

X(3940) REFERENCES

PAKHLOV ABE	08 07	PRL 100 202001 PRL 98 082001	P. Pakhlov <i>et al.</i> K. Abe <i>et al.</i>	(BELLE Collab.) (BELLE Collab.)
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NODE=M029

NODE=M029

NODE=M029M

NODE=M029M

OCCUR=2

NODE=M029M;LINKAGE=EB

NODE=M029M;LINKAGE=EM

NODE=M029W

NODE=M029W

NODE=M029215;NODE=M029

DESIG=1;OUR EVAL; \rightarrow UNCHECKED \leftarrow
DESIG=2;OUR EVAL; \rightarrow UNCHECKED \leftarrow
DESIG=3;OUR EVAL; \rightarrow UNCHECKED \leftarrow

NODE=M029225

NODE=M029R01
NODE=M029R01NODE=M029R01;LINKAGE=AB
NODE=M029R01;LINKAGE=AENODE=M029R02
NODE=M029R02NODE=M029R02;LINKAGE=AB
NODE=M029R02;LINKAGE=AENODE=M029R03
NODE=M029R03NODE=M029R03;LINKAGE=AB
NODE=M029R03;LINKAGE=AE

NODE=M029

REFID=52302
REFID=51627